Amendment

In the Claims

1. (currently amended) A ~~composition~~ dosage formulation for oral administration comprising an effective amount to treat a patient in need thereof of arsenic trioxide~~, wherein the composition is prepared by a method comprising: (a) adding arsenic trioxide to sterile water to form a first solution/suspensio; (b) adding sodium hydroxide to the first solution to form a second solution; and (c) adding hydrochloric acid to the second solution to form a third solution~~ when administered orally, wherein the amount is less than the effective amount for intravenous administration.

2. (currently amended) The ~~composition~~ dosage formulation of claim 1, wherein the arsenic trioxide ~~in step (a)~~ is a powder.

3. (currently amended) The ~~composition~~ dosage formulation of claim 2, wherein the arsenic trioxide powder has at least 90%, 95%, 96%, 97%, 98% or 99% purity.

4. (currently amended) The ~~composition~~ dosage formulation of claim 1, wherein the ~~sodium hydroxide has a molar concentration of 3M~~ arsenic trioxide is in a solution of sterile water adjusted to pH between 6 and 8.

5. (currently amended) The ~~composition~~ dosage formulation of claim 1, ~~wherein the hydrochloric acid has a molar concentration of 6M~~ further comprising at least one additional pharmacological agent.

6. (currently amended) The ~~composition~~ dosage formulation of claim 5, wherein the ~~third solution has a pH of 8.0~~ additional pharmacological agent is a chemotherapeutic.

7. (cancelled)

8. (cancelled)

9. (currently amended) The ~~composition~~ dosage formulation of claim ~~7~~ 4, wherein the final solution has an arsenic trioxide concentration of 1 mg/ml.

10. (currently amended) ~~A composition for oral administration comprising arsenic trioxide, whereinthe composition is prepared by a method comprising: (a) a first step of adding 500 mg of arsenic trioxide to 150 ml of sterile water to form a first solution; (b) a second step of adding 3M sodium hydroxide to the first solution to form a second solution; (c) a third step of adding 250 ml of sterile water to the second solution to form a third solution; (d) a fourth step of adding 6M hydrochloric acid to the third solution to form a fourth solution; and (e) a fifth step of adding dilute hydrochloric acid and sterile water to the fourth solution to form a final solution~~ The dosage formulation of claim 1 in the form of tablets, capsules, dispersions, or suspensions.

Claims 11-27. (cancelled)

28. (currently amended) A method of treating hematological malignancies in a subject in need thereof, the method comprising orally administering to the subject a therapeutically effective amount of an arsenic trioxide composition with fewer side effects than the same amount of arsenic trioxide administered intravenously~~, wherein the arsenic trioxide composition is prepared by a method comprising: (a) a first step of adding 500 mg of arsenic~~

~~trioxide to 150 ml of sterile water to form a first solution; (b) a second step of adding 3M sodium hydroxide to said first solution to form a second solution; (c) a third step of adding 250 ml of sterile water to said second solution to form a third solution; (d) a fourth step of adding 6M hydrochloric acid to said third solution to form a fourth solution; and (e) a fifth step of adding dilute hydrochloric acid and sterile water to said fourth solution to form a final solution.~~

29. (currently amended) The method of claim 28, wherein the arsenic trioxide ~~in step (a)~~ is a powder.

30. (original) The method of claim 29, wherein the arsenic trioxide powder has at least 90%, 95%, 96%, 97%, 98% or 99% purity.

31. (currently amended) The method of claim 28, wherein the arsenic trioxide is incompletely dissolved ~~in the first~~ or dispersed in a solution.

32. (currently amended) The method of claim 28, wherein the arsenic trioxide is ~~completely dissolved prior to adding the hydrochloric acid in step (d)~~ administered in a dosage of 5 to 10 mg/day.

33. (currently amended) The method of claim 28, wherein the arsenic trioxide is in a solution having a pH of ~~the fourth solution has a pH of~~ 8.0.

34. (currently amended) The method of claim 28, wherein the ~~final~~ arsenic trioxide is in a solution ~~has~~ having a pH of 7.2.

Claims 35-37. (cancelled)

38. (currently amended) The method of claim ~~37~~ 28, wherein the arsenic trioxide composition is orally administered to the subject at intervals for periods of ~~at least~~ a month or longer.

39. (previously presented) The method of claim 28, wherein the therapeutically effective amount is 10 mg per day.

40. (original) The method of claim 28, wherein the hematological malignancies is selected from the group consisting of acute myeloid leukemia, acute nonlymphocytic leukemia, myeloblastic leukemia, promyelocytic leukemia, myelomonocytic leukemia, monocytic leukemia, erythroleukemia, myelodysplastic syndrome, acute promyelocytic leukemia, chronic lymphocytic leukemia, chronic myeloid leukemia, hairy cell leukemia, polycythemia vera, Hodgkin's lymphoma, non-Hodgkin's lymphomas, myeloma, giant cell myeloma, indolent myeloma, localized myeloma, multiple myeloma, plasma cell myeloma, sclerosing myeloma, solitary myeloma, smoldering multiple myeloma, nonsecretary myeloma, osteosclerotic myeloma, plasma cell leukemia, solitary plasmacytoma, and extramedullary plasmacytoma.

41. (original) The method of claim 28, wherein the hematological malignancies is acute myeloid leukemia.

42. (original) The method of claim 28, wherein the hematological malignancies is acute promyelocytic leukemia.

43. (new) The method of claim 28 further comprising administering one or more additional chemotherapeutic agents.

44. (new) The dosage formulation of claim 1 in combination with one or more additional chemotherapeutic agents.